

Glossary

1-in-10 Year Drought A drought of such intensity, that it is expected to have a return frequency of once in 10 years. A drought, in which below normal rainfall, has a 90 percent probability of being exceeded over a twelve-month period. This means that there is only a ten percent chance that less than this amount of rain will fall in any given year.

1-in-10 Year Level of Certainty Probability that the needs for reasonable-beneficial uses of water will be fully met during a 1-in-10 year drought.

Agricultural Field Scale Irrigation Requirements Simulation (AFSIRS) A simple water budget model for estimating irrigation demands that estimates demand based on basin specific data.

Agricultural Self-Supplied Water Demand The water used to irrigate crops, to water cattle and for aquaculture (e.g., fish production) that is not supplied by a public water supply utility.

Aquifer A portion of a geologic formation or formations that yield water in sufficient quantities to be a supply source.

Aquifer Storage and Recovery (ASR) The injection of fresh water into a confined saline aquifer during times when supply exceeds demand (wet season), and recovering it during times when there is a supply deficit (dry season).

Aquifer System A heterogeneous body of intercalated permeable and less permeable material that acts as a water-yielding hydraulic unit of regional extent.

Artesian When groundwater is confined under pressure greater than atmospheric pressure by overlying relatively impermeable strata.

Average Daily Demand A water system's average daily use based on total annual water production (total annual gallons or cubic feet divided by 365).

Average Irrigation Requirement Irrigation requirement under average rainfall as calculated by the District's modified Blaney-Criddle model.

Average Rainfall Year A year having rainfall with a 50 percent probability of being exceeded over a twelve-month period.

Basin (Groundwater) A hydrologic unit containing one large aquifer or several connecting and interconnecting aquifers.

Basin (Surface Water) A tract of land drained by a surface water body or its tributaries.

Biochemical Oxygen Demand (BOD) The amount of dissolved oxygen required to meet the metabolic needs of aerobic microorganisms in water rich in organic matter, such as sewage. Also known as Biological Oxygen Demand.

Blaney-Criddle A formula to calculate evapotranspiration (ET) based on mean temperature and number of daylight hours. The Water Supply Department allocates water using a version of the Blaney-Criddle that employs months as time increments. The 'Modified Blaney-Criddle' is a variation of Blaney-Criddle, which multiplies the ET from Blaney-Criddle by a coefficient that relates mean air temperature to the growth stage of a crop. Additionally, effective rainfall is calculated using the mean temperature and hours of daylight, the Blaney-Criddle ET, average monthly rainfall and a soil factor. Further calculations consider average rainfall to drought rainfall (1-in-10 year drought). The difference between monthly drought effective rainfall and monthly ET becomes the basis for water allocations.

Boulder Zone A highly transmissive, cavernous zone of limestone within the lower Floridan Aquifer.

Commercial and Industrial Self-Supplied Water Demand Water used by commercial and industrial operations withdrawing over 0.1 million gallons per day from individual, on-site wells.

Comprehensive Everglades Restoration Plan (CERP) The implementation of recommendations made within the Restudy, that is, structural and operational modifications to the C&SF Project are being further refined and will be implemented through this plan.

Confined Aquifer Water bearing stratum of permeable rock, sand or gravel overlaid by a thick, impermeable stratum.

Consumptive Use Use that reduces an amount of water in the source from which it is withdrawn.

Consumptive Use Permit (CUP) A permit issued by the SFWMD under authority of Chapter 40E-2, F.A.C., allowing withdrawal of water for consumptive use.

Demand The quantity of water needed to be withdrawn to fulfill a requirement.

Desalination A process that treats saline water to remove chlorides and dissolved solids, resulting in the production of fresh water.

Domestic Self-Supplied (DSS) Water Demand The water used by households whose primary source of water is private wells and water treatment facilities with pumpages of less than 0.10 million gallons per day.

Evapotranspiration (ET) Water losses from the surface of water and soils (evaporation) and plants (transpiration).

Fiscal Year (FY) The South Florida Water Management District's fiscal year begins on October 1 and ends on September 30 the following year.

Florida Department of Agricultural and Consumer Services (FDACS) FDACS communicates the needs of the agricultural industry to the Florida Legislature, the FDEP, and the water management districts, and ensures participation of agriculture in the development and implementation of water policy decisions. FDACS also oversees Florida's soil and water conservation districts, which coordinate closely with the federal Natural Resources Conservation Service (NRCS).

Florida Department of Environmental Protection (FDEP) The SFWMD operates under the general supervisory authority of the FDEP, which includes budgetary oversight.

Floridan Aquifer System (FAS) A highly-used aquifer system composed of the Upper Floridan and Lower Floridan Aquifers. It is the principal source of water supply north of Lake Okeechobee and the upper Floridan Aquifer is used for drinking water supply in parts of Martin and St. Lucie Counties. From Jupiter to south Miami, water from the Floridan Aquifer System is mineralized (total dissolved solids are greater than 1,000 mg/L) along coastal areas and in southern Florida.

Geographic Information Systems (GIS) The abstract representation of natural (or cultural) features of a landscape into a digital database, geographic information system.

Groundwater Water beneath the soil surface, whether or not flowing through known and definite channels.

Indian River Lagoon Extending for 156 miles from north of Cape Canaveral to Stuart along the east coast of Florida, this lagoon is America's most diverse estuary, home to more than 4,000 plant and animal species.

Infiltration The movement of water through the soil surface into the soil under the forces of gravity and capillarity.

Institute of Food and Agricultural Sciences (IFAS) Agricultural branch of the University of Florida that performs research, education and extension.

Irrigation The application of water to crops and other plants by artificial means.

Irrigation Efficiency The average percent of total water pumped or delivered for use that is delivered to the root zone of a plant.

Lagoon A body of water separated from the ocean by barrier islands, with limited exchange with the ocean through inlets.

Level of Certainty Probability that the demands for reasonable-beneficial uses of water will be fully met for a specified period of time (generally taken to be one year) and for a specified condition of water availability (generally taken to be a drought event of a specified return frequency).

Marsh A frequently or continually inundated non-forested wetland characterized by emergent herbaceous vegetation adapted to saturated soil conditions.

Natural Resources Conservation Service (NRCS) An agency of the U.S. Department of Agriculture (USDA) that provides technical assistance for soil and water conservation, natural resource surveys and community resource protection. Formerly the U.S. Soil Conservation Service (SCS).

Potable Water Water that is safe for human consumption. The maximum chloride concentration is 250 milligrams/liter.

Potentiometric Surface An imaginary surface representing the total head of groundwater.

Process Water Water used for nonpotable industrial usage, e.g., mixing cement.

Public Water Supply (PWS) Utilities that provide potable water for public use.

Reasonable-Beneficial Use Use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner that is both reasonable and consistent with the public interest.

Reclaimed Water Water that has received at least secondary treatment and basic disinfection and is reused after flowing out of a domestic wastewater treatment facility.

Recreational Self-Supplied Water Demand The water used for landscape and golf course irrigation. The landscape subcategory includes water used for parks, cemeteries and other irrigation applications greater than 0.1 million gallons per day. The golf course subcategory includes those operations not supplied by a public water supply or regional reuse facility.

Regional Water Supply Plan (RWSP) Detailed water supply plan developed by the District under Section 373.0361, F.S. , providing an evaluation of available water supply and projected demands, at the regional scale. The planning process projects future demand for 20 years and develops strategies to meet identified needs.

Reservoir A man-made or natural water body used for water storage.

Retrofit The replacement of existing equipment with equipment of higher efficiency.

Reuse The deliberate application of water that has received at least secondary treatment for a beneficial purpose, in compliance with the Florida Department of Environmental Protection and water management district rules, for a beneficial purpose.

Reverse Osmosis (RO) A membrane process for desalting water using applied pressure to drive the feedwater (source water) through a semipermeable membrane.

Self-Supplied The water used to satisfy a water need, not supplied by a public water supply utility.

Seepage Irrigation Irrigation that conveys water through open ditches. Water is either applied to the soil surface (possibly in furrows) and held for a period of time to allow infiltration, or is applied to the soil subsurface by raising the water table to wet the root zone.

Sinusoidal The real or complex function $\sin(u)$ or any function with analogous continuous periodic behavior.

Slough A channel in which water moves sluggishly, or a place of deep muck, mud or mire. Sloughs are wetland habitats that serve as channels for water draining off surrounding uplands and/or wetlands.

Storm Water Surface water resulting from rainfall runoff that does not percolate into the ground or evaporate.

Surface Water Water that flows, falls or collects above the soil or substrate surface.

Surface Water Improvement and Management (SWIM) Plan A plan prepared pursuant to Chapter 373, F.S.

Surficial Aquifer System (SAS) Often the principal source of water for urban uses within certain areas of south Florida. This aquifer is unconfined, consisting of varying amounts of limestone and sediments that extend from the land surface to the top of an intermediate confining unit.

Thermoelectric Self-Supplied Water Demand The difference in the amount of water withdrawn by electric power generating facilities for cooling purposes and the water returned to the hydrologic system near the point of withdrawal.

Total Trihalomethane (TTHM) A sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform.

Trihalomethanes (THMs) Any of several synthetic organic compounds formed when chlorine combines with organic materials in water during the disinfection process.

Wastewater The waterborne discharge from residences, commercial buildings, industrial plants and institutions together with any groundwater, surface runoff or leachate that may be present.

Water Conservation Reducing the demand for water through activities that alter water use practices, e.g., improving efficiency in water use, and reducing losses of water, waste of water and water use.

Water Shortage Declaration If there is a possibility that insufficient water will be available within a source class to meet the estimated present and anticipated user demands from that source, or to protect the water resource from serious harm, the governing board may declare a water shortage for the affected source class. (Rule 40E-21.231, F.A.C.) Estimates of the percent reduction in demand required to match available supply is required and identifies which phase of drought restriction is implemented. A gradual progression in severity of restriction is implemented through increasing phases. Once declared, the District is required to notify permitted users by mail of the restrictions and to publish restrictions in area newspapers.